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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/788,055	02/16/2001	Sara Mazur	34647-00411USPT	4156
38065	7590	03/16/2005	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR C11 PLANO, TX 75024			KADING, JOSHUA A	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/788,055

Applicant(s)

MAZUR ET AL.

Examiner

Joshua Kading

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-16, 18-26, 28-34 and 36-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-26, 28, 29 and 41 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-16, 18-21, 30-34, and 36-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

5 A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10 Claims 1, 2, 4, 6-13, 15, 18-21, 30, 31, 33, and 36-40 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,299,198, Kay et al. (Kay).

 Regarding claims 1 and 30, Kay discloses the method of claim 1 and the system of claim 30. The system comprising means for implementing the steps of the method in
15 claim 1. The system “comprising: a network control unit (figure 3, MSC); and a terminal unit coupled to said network control unit by a transmission medium (figure 3, MS), said network control unit further comprising: means for allocating a first unit of real-time data for transmission during a first interval with a first transmission rate (figure 3, Common Functions; and figure 2, MS 21 transmits in a first interval of slot 3); means for allocating
20 non-real-time data for transmission during a second interval (figure 2, where there is a “blank” interval of slot 3 at frames 6 and 7 and as seen in figure 4, this non-real-time data can be control data as seen in slot 3 of frame 3); means for allocating a second unit of real-time data for transmission during a third interval with a second transmission rate (figure 2, MS 32 transmits in a different interval in frame 8 and the transmission rate
25 is different because it occupies less frame slots than MS 21 thereby giving it a different

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effective transmission rate); and means for allocating a third unit of real-time data for transmission during said third interval with said second transmission rate (figure 2, MS 32 transmits real-time data at the interval of frame 9 in slot 3 and is at the same transmission rate as the interval of frame 8); wherein each of said intervals is sequential
5 and comprises a block in a timeslot (figure 2)."

Regarding claims 10 and 40, Kay discloses the method of claim 10 and the system of claim 40. The system comprising means for implementing the steps of the method in claim 10. The system "comprising: a network control unit (figure 3, MSC); and
10 a terminal unit coupled to said network control unit by a transmission medium (figure 3, MS), said network control unit further comprising: means for allocating a first unit of real-time data for transmission during a first interval with a first transmission rate (figure 3, Common Functions; and figure 2, MS 21 transmits in a first interval of slot 3); means for allocating non-real-time data for transmission during a second interval (figure 2, where
15 there is a "blank" interval of slot 3 at frames 6 and 7 and as seen in figure 4, this non-real-time data can be control data as seen in slot 3 of frame 3); means for allocating a second unit of real-time data for transmission during said second interval with a second transmission rate (figure 2, MS 2 transmits in part of the second interval in frame 7 of slot 1 and the transmission rate is different because it occupies less frame slots than
20 MS 21 thereby giving it a different effective transmission rate); and means for allocating a third unit of real-time data for transmission during said second interval (figure 2, MS 2 transmits real-time data at the last portion of the second interval in frame 8 of slot 1);

wherein each of said intervals is sequential and comprises a block in a timeslot (figure 2).”

Regarding claim 11, Kay discloses, “the method of claim 10, wherein the step of
5 allocating said non-real-time data further comprises allocating said non-real-time data for a first timeslot (figure 2, frames 6 and 7 of slot 3), and the steps of allocating said second unit of real-time data and said third unit of real-time data further comprises allocating said second unit of real-time data and said third unit of real-time data for a second timeslot (figure 2, frames 7 and 8 of slot 1).”

10 Regarding claim 12, Kay discloses, “the method of claim 10, wherein said first and second units of real-time data are allocated to a first user, and said third unit of real-time data is allocated to a second user (figure 15 shows that slot 1 there can the first and second portions of the slot which are allocated to user 1 and the third portion is
15 allocated to user 2).”

Regarding claims 2, 13, and 31, Kay discloses the methods of claims 1 and 10 and the system of claim 30. Kay further discloses, “said real-time data includes speech data (col. 6, lines 46-55).”

20 Regarding claims 4, 15, and 33, Kay discloses the methods of claims 1 and 10 and the system of claim 30. Kay further discloses, “said communication network

comprises a TDMA communication network (figure 2 shows the TDMA structure for communication)."

Regarding claims 6, 18, and 36, Kay discloses the methods of claims 1 and 10
5 and the system of claim 30. Kay further discloses, "said first transmission rate
comprises a transmission at a full-rate (col. 2, lines 16-22)."

Regarding claims 7, 19, and 37, Kay discloses the methods of claims 1 and 10
and the system of claim 30. Kay further discloses, "said first transmission rate is a
10 higher rate than said second transmission rate (col. 2, lines 16-22)."

Regarding claims 8, 20, and 38, Kay discloses the methods of claims 1 and 10
and the system of claim 30. Kay further discloses, "said second transmission rate
comprises a transmission at a half-rate (col. 2, lines 16-22)."

15 Regarding claims 9, 21, and 39, Kay discloses the methods of claims 1 and 10
and the system of claim 30. Kay further discloses, "said non-real-time data comprises
control data (figure 4 shows that the non-real-time data can comprise of control data)."

20 ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 14, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kay et al. in view of U.S. Patent 5,517,492 (Spear).

Regarding claims 3, 14, and 32, Kay discloses the methods of claims 1 and 10, and the system of claim 30. However, Kay lacks what Spear discloses, "each said first unit, second unit and third unit of real-time data comprises a respective 20 ms signal output from a speech codec (col. 3, lines 26-30)." It would have been obvious to one of ordinary skill in the art at the time of invention to include the 20 ms speech for the purpose of producing a digitized voice sample to be transmitted in the TDMA format.

The motivation for using a 20 ms speech sample to digitize voice to put in a TDMA format is because the TDMA framework dictates that the voice sample must be 20 ms long based on coding information and the length of TDMA frames (col. 2, lines 64-col. 3, line 1).

Claims 16 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kay et al. in view of U.S. Patent 6,647,006 B1 (Rasanen).

Regarding claims 16 and 34, Kay discloses the method of claim 10 and the system of claim 30. However, Kay lacks what Rasanen discloses, "said communication network comprises a Compact EDGE network (col. 2, lines 4-9 and figure 6 showing the EDGE frames thus suggesting there is an EDGE network)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the EDGE network

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with the method of claim 10 and the system of claim 30 for the purpose of providing a higher data rate per time slot than other GSM systems. The motivation for providing a higher data rate can be the ability to add more users, transmit more data per user, and transmit the data faster.

5

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter: Claims 22-26, 28, 29, and 41 are allowable because the prior art of record fails to teach, in combination with other claim limitations, "if said second interval is not
10 contiguous with said first interval, allocating a third unit of real-time data and a fourth unit of real-time data for transmission during a third interval... allocating a fifth... and sixth unit of real-time data for transmission during a fourth interval... said third interval contiguous with said second interval, and said fourth interval contiguous with said third interval," where the term "interval" is taken as defined by applicant in the claim ("wherein
15 each of said intervals is sequential and comprises a block in a timeslot") and as stated in the REMARKS, page 11, last paragraph.

Response to Arguments

Applicant's arguments with respect to claims 1-4, 6-16, 18-21, 30-34, and 36-40
20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

5 A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any
10 extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the
15 examiner should be directed to Joshua Kading whose telephone number is (571) 272-3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

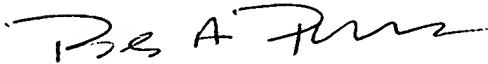
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

- 5 For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joshua Kading
Examiner
Art Unit 2661

10 March 7, 2005



BOB PHUNKULH
PRIMARY EXAMINER